



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,845	04/02/2001	Haruhiko Nagura	23634X	8608
20529	7590	08/06/2004	EXAMINER	
NATH & ASSOCIATES 1030 15th STREET 6TH FLOOR WASHINGTON, DC 20005			TRAN, HIEN THI	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/822,845

Applicant(s)

NAGURA ET AL.

Examiner

Hien Tran

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. ☒ 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 21-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-23 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/100,979.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/18/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. This application contains claims 1-23 being directed to the following patentably distinct species of the claimed invention:

Species I, claims 1-11, 21-23 (requiring one honeycomb core and the metal engaging plate, the engaging plate being disposed at the inlet side end of the carrier).

Species II, claims 12-20 (requiring two honeycomb cores with a partitioning member for dividing the interior of the cylinder into first and second spaces which both spaces being connected to the inlet and outlet).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP ' 809.02(a).

Art Unit: 1764

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, recognized divergent subject matter and the search required for Species I is not required for Species II, therefore restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Mr. Darek Richmond on 07/28/04 a provisional election was made without traverse to prosecute the invention of Species I, claims 1-11, 21-23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Art Unit: 1764

***Priority***

5. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/100,979, filed on 6/22/98.

***Specification***

6. The disclosure is objected to because of the following informalities:
- On page 1, in the insertion before the line of the sentence --, now abandoned-- should be inserted after "1998".
- On page 14, line 16 "in a" should be changed to --in--.
- On page 16, line 35 "tube3" should be changed to --tube 2-- (note page 10, lines 6-7).
- Appropriate correction is required.
7. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Objections***

8. Claim 6 is objected to because of the following informalities:
- In claim 6, line 7 "a" should be changed to --the--.
- Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1764

10. Claims 1-11, 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 5-8 it is unclear as to what is intended by "respective", how the other sheets are related to the respective sheet, and whether the plate may also cross other sheets.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 1-4, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honma (5,323,608) in view of Hitachi et al (5,177,960).

Honma discloses a catalytic converter comprising:

a tubular member 12 having a wall, the tubular member 12 having an inlet and an outlet;

Art Unit: 1764

a carrier 14 contained in the tubular member; the carrier including a series of sheets; the sheet being superposed with each other; and

an engaging plate (16, 40, 60) crossing the sheet and being engaged with the series of sheet.

The apparatus of Honma is substantially the same as that of the instant claims, but fails to disclose the specific structure of the carrier as claimed, e.g. the sheet extends transversely between a point and another point on the wall.

However, Hitachi et al '960 discloses the conventionality of providing different types of carriers, such as the one having a plurality of sheets extending transversely between one point and another point on the wall (Fig. 5).

Since the shape of the carrier is not considered to confer patentability to the claim, it would have been obvious to one having ordinary skill in the art to select an appropriate shape for the catalyst carrier, such as the one taught by Hitachi et al '906 in the apparatus of Honma on the basis of its suitability for the intended use as a matter of obvious design choice since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art, absence showing any unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

14. Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honma (5,323,608) in view of Hitachi et al (5,177,960) as applied to claims 1-4, 21-23 above and further in view of DE 3,844,350 or Freund (5,384,100) or Nonnenmann (4,665,051).

Hitachi et al '960 further discloses that the catalyst carrier in corrugated form having flat rack portions (Fig. 1).

Art Unit: 1764

DE 3,844,350, Nonnenmann and Freund disclose provision of a catalyst carrier having third and fourth convex portions being partitioned by two cuttings.

It would have been obvious to one having ordinary skill in the art to provide the catalyst carrier in the modified apparatus of Honma with cuttings as taught by DE 3,844,350 or Freund or Nonnenmann on the basis of its suitability for the intended use as a matter of obvious design choice and for enhancing the turbulence of the exhaust flowing therethrough, thereby increasing the effectiveness of the catalyst carrier.

15. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Honma (5,323,608) in view of Hitachi et al (5,177,960) as applied to claims 1-4, 21-23 above and further in view of Hitachi et al (5,734,402).

The modified apparatus of Honma is substantially the same as that of the instant claims, but fails to disclose whether the carrier may be folded in S-shape.

However, Hitachi et al '402 discloses the conventionality of providing a catalyst carrier folded in S-shape.

It would have been obvious to one having ordinary skill in the art to alternately fold the carrier in S-shape as taught by Hitachi et al '402 in the modified apparatus of Honma on the basis of its suitability for the intended use as a matter of obvious design choice since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art, absence showing any unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

#### ***Double Patenting***

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or



Art Unit: 1764

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claims 1-11, 21-23 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,287,523 in view of Honma (5,323,608).

US 6,287,523 discloses a honeycomb metallic catalyst carrier of substantially the same as that of the instant claims, but fails to disclose provision of an engaging plate crossing the sheet as claimed.

The same teachings with respect to Honma apply.

It would have been obvious to one having ordinary skill in the art to provide an engaging plate in the apparatus of US 6,287,523 for restricting the honeycomb core in the axial direction in the casing and preventing it from being deformed while preventing sheets of the core from shifting relative to each other as taught by Honma.

### ***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kanniainen et al, Hitachi et al (5,163,291), Weber et al, and Reck et al are cited for showing state of the art.

Art Unit: 1764

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT

*Hien Tran*

**Hien Tran**  
**Primary Examiner**  
**Art Unit 1764**